

ELECTRO-OPTICAL DIMMING SYSTEM

ABSTRACT OF THE DISCLOSURE

An electronic dimming system for use in projection displays is provided. In a first embodiment, the dimming system comprises a first non-absorbing polarizer, a variable polarization rotator, a second non-absorbing polarizer and a heat absorber. The first non-absorbing polarizer receives light from a light source and passes the light of a selected polarization to the variable polarization rotator. The variable polarization rotator selectively rotates the polarization of the received light. The light passes from the variable polarization rotator to the second non-absorbing polarizer. The second non-absorbing polarizer passes only light of a second selected polarization. The light that passes the second non-absorbing polarizer is passed to the display, where it is used to illuminate the display. The system provides the ability to control the amount of light passed to the display by selectively rotating the polarization of the light with the variable polarization rotator.